Print ISSN: 2319-2003 | Online ISSN: 2279-0780

IJBCP International Journal of Basic & Clinical Pharmacology

DOI: http://dx.doi.org/10.18203/2319-2003.ijbcp20173303

Case Report

Nimesulide induced Stevens Johnson Syndrome: a case report

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Received: 14 May 2017
Accepted: 24 June 2017

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ABSTRACT

Adverse drug reactions to the prescribed medicines are the major obstacles in continuation of drug treatment. Stevens- Johnson Syndrome (SJS) is a severe, episodic, acute mucocutaneous reaction which is most commonly elicited by drugs and occasionally by infections. Common drugs associated with SJS are sulphonamide antibiotics, anticonvulsants, non- steroidal anti-inflammatory drugs (NSAIDS) and allopurinol. Nimesulide is an NSAID with analgesic and antipyretic properties. Here, we report a case of 21 years old male patient who developed Stevens Johnson Syndrome following ingestion of tablet Nimesulide. The patient was managed with parenteral corticosteroids, antibiotics, emollients, and supportive care. This case highlights the importance of Nimesulide and other NSAIDs as possible cause of SJS. Nimesulide has never been approved in countries like USA, Canada, Australia. But in India it is available as over the counter drug and is used for various indications like fever, myalgia, arthralgia. Therefore, the drugs which are banned outside India should be used with caution and practitioners should report all the adverse drug reactions to such drugs.

Keywords: Adverse drug reaction, Nimesulide, Stevens Johnson Syndrome

INTRODUCTION

According to WHO, adverse drug reaction is defined as 'a response to a drug which is noxious and unintended, and which occurs at doses normally used in man for the prophylaxis, diagnosis, or therapy of disease, or for the modification of physiological function'.[1] These reactions are major obstacle in the continuation of drug therapy. Sometimes these reactions can be life threatening. Stevens Johnson Syndrome (SJS) is one of such life-threatening skin condition involving skin and mucus membranes. It was first described in 1922 as an extraordinary, generalized skin eruption.[2]

In SJS, characteristic feature is blistering, vesicular rash involving up to 10 % of body surface area with erosion of mucous membrane predominantly the oral mucosa, lips and conjunctivae.[3] The incidence of Stevens Johnson syndrome is quite low, 1 to 6 cases per million person years.[4] Drugs are the contributing factor in SJS in more than 50% cases. Commonly associated drugs with SJS are sulphonamide antibiotics, anticonvulsants, non-steroidal anti-inflammatory drugs (NSAIDs), and allopurinol.[5]

CASE REPORT

A 21-year-old male patient was admitted to the skin ward in our hospital with complaints of rash all over the body for two days. The rash initially started on face then spread over to neck, abdomen, chest, back, upper and lower limbs and genitalia within 24 hrs. Patient also gave history of watering and redness of eyes and difficulty in opening the eyes. There was also history of swelling of

lips and decreased mouth opening. After detailed inquiry, patient gave history of ingestion of tablet Nimesulide prescribed by a general practitioner for fever. The rash and the other complaints started after ingestion of tablet Nimesulide within few hours. There was no history of other drug intake or past history of allergy to any drug.

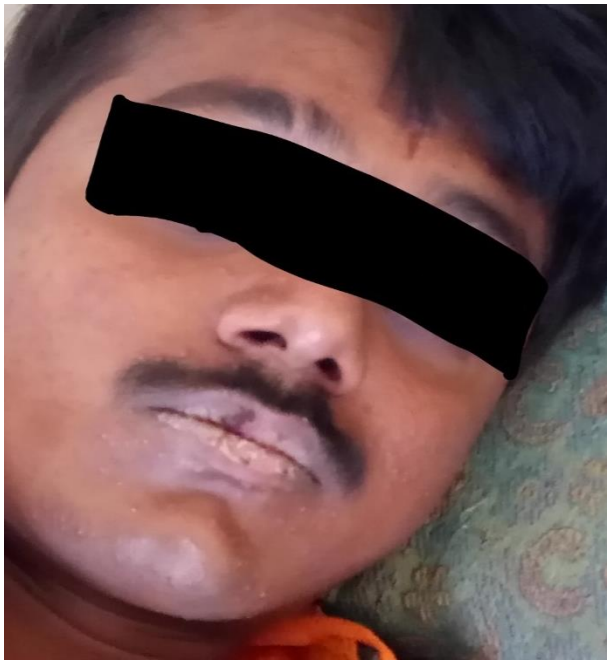

Figure 1: Crusted lips.

On examination, patient was ill looking, vitals were stable except tachycardia, pulse-120/min. Vesicular rash was present over face, neck, chest, abdomen, upper and lower limbs including genitalia. Blisters were present over palms and soles. Few atypical target lesions were present over upper and lower limbs. Ocular examination showed mucoid discharge, matted eyelashes, and ulcerative blepharitis. On oral examination, we found swollen, crusted lips with swollen tongue and decreased mouth opening. Other systemic examinations were within normal limits.

Haematological and biochemical investigations were sent which were within normal limits. With history, clinical examination and laboratory findings diagnosis of Nimesulide induced Stevens Johnson Syndrome was made and patient was managed with parenteral corticosteroids, third generation cephalosporin, local anaesthetic gel for oral lesions along with mouth paint. After two weeks, clinical improvement was noted with healing of mucosal lesions and fading of rash.

Following scales are applied for the assessment of the event:

- WHO-UMC scale for causality assessment- 'Probable'.
- Naranjo's scale- Probable.
- Alden Algorithm (specific for Stevens Johnson Syndrome)- 'Probable'.
- Schumocks and Thornton preventability Assessment Scale- 'Definitely preventable'.
- Hartwig and Siegel Severity assessment scale- 'Severe'.

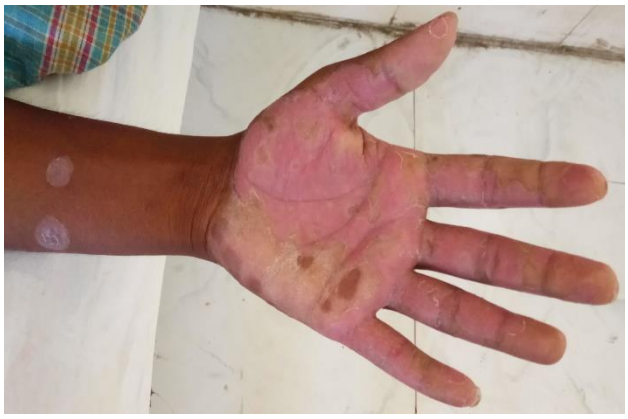

Figure 2: Ruptured blisters in healing stage.

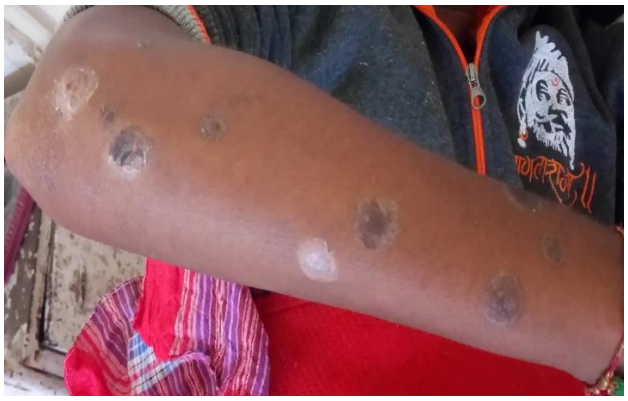

Figure 3: Healing lesions over hands.

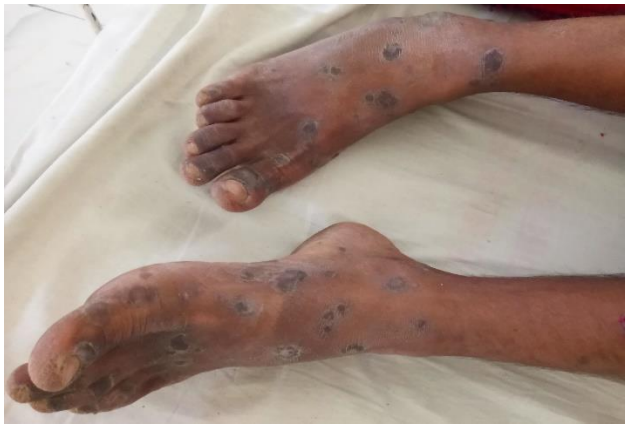

Figure 4: Healing lesions over feet.

DISCUSSION

Stevens Johnson Syndrome and Toxic Epidermal Necrolysis are considered as two ends of spectrum of

severe epidermolytic adverse cutaneous drug reactions differing only in their extent of skin detachment.[6] When the skin detachment is below 10% of body surface area BSA plus widespread erythematous or purpuric macules or flat atypical lesions are there, it is classified as Stevens Johnson Syndrome, detachment between 10-30% of body surface area plus widespread purpuric macules or flat atypical targets, it is classified as overlap Stevens Johnson Syndrome toxic epidermal necrolysis. Detachment above 30% of the body surface area plus widespread purpuric macules or flat atypical targets is classified as toxic epidermal necrolysis.[7]

Steven-Johnson syndrome and toxic epidermal necrolysis are severe cutaneous disorders characterized by extensive blister formation over skin and mucus membrane. Mucocutaneous rash develops acutely and is typically associated with vesicles and blisters. In severe cases, extensive necrosis of epidermis and other epithelia and mucus membrane is seen. Characteristic clinical presentation includes rash, blisters, persistent fever, blisters in mouth, eyes, ears, nose, genital area, swelling of eyelids, conjunctivitis. Target lesions are not always seen in SJS.[6]

In most of the cases, etiology is linked to the use of drugs. Commonly attributed drugs are sulphonamide followed by NSAIDS, anti-convulsant drugs and anti-gout drugs.[6] Drug induced SJS is characterized by mucosal erosions plus widespread distribution of atypical target/ purpuric macules and epithelial detachment involving less than 10% BSA on the trunk, face and extremities.[8]

Diagnosis of SJS mainly relies on clinic-pathological features. Treatment consists of prompt withdrawal of suspended drug, appropriate symptomatic medication, fluid replacement and wound care.[9] At present, there is no uniform strategy for management of SJS and administration of corticosteroids is controversial.[10] The popular belief is that corticosteroids suppress the intensity of reaction, control the extension of necrolytic process and prevent damage to internal organs when given at an early stage.[9]

Antiseptic/antibiotic eye drops should be liberally used on ocular lesion. Topical antiseptic like 0.5% silver nitrate/ 0.05% chlorhexidine are used for skin lesions to prevent secondary infection. In severe cases patient must be transferred to burn unit.

In this case, the diagnosis of Nimesulide induced SJS was based on history and clinical features. WHO adverse drug reaction scale was used to assess the causality. It suggested probable association with drug as no other drug was taken concurrently. Schumocks and Thornton preventability Assessment Scale showed the event was 'definitely preventable'. Hartwig and Siegel Severity assessment scale was applied and it classified the event as "severe".[11] Alden Algorithm which is specific for Stevens Johnson Syndrome when applied for causality assessment it showed the association as "probable".[12]

CONCLUSION

In India, Nimesulide is readily available as an over the counter drug (OTC) for various indications such as fever, myalgia, arthralgia. It has been banned in countries like USA, Australia, Canada. Therefore, in India practitioners should report all the adverse drug reactions seen with the drugs like Nimesulide which are banned outside India.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

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Cite this article as: Naikwadi SA, Jadhav RB. Nimesulide induced Stevens Johnson Syndrome: a case report. Int J Basic Clin Pharmacol 2017;6:2094-7.